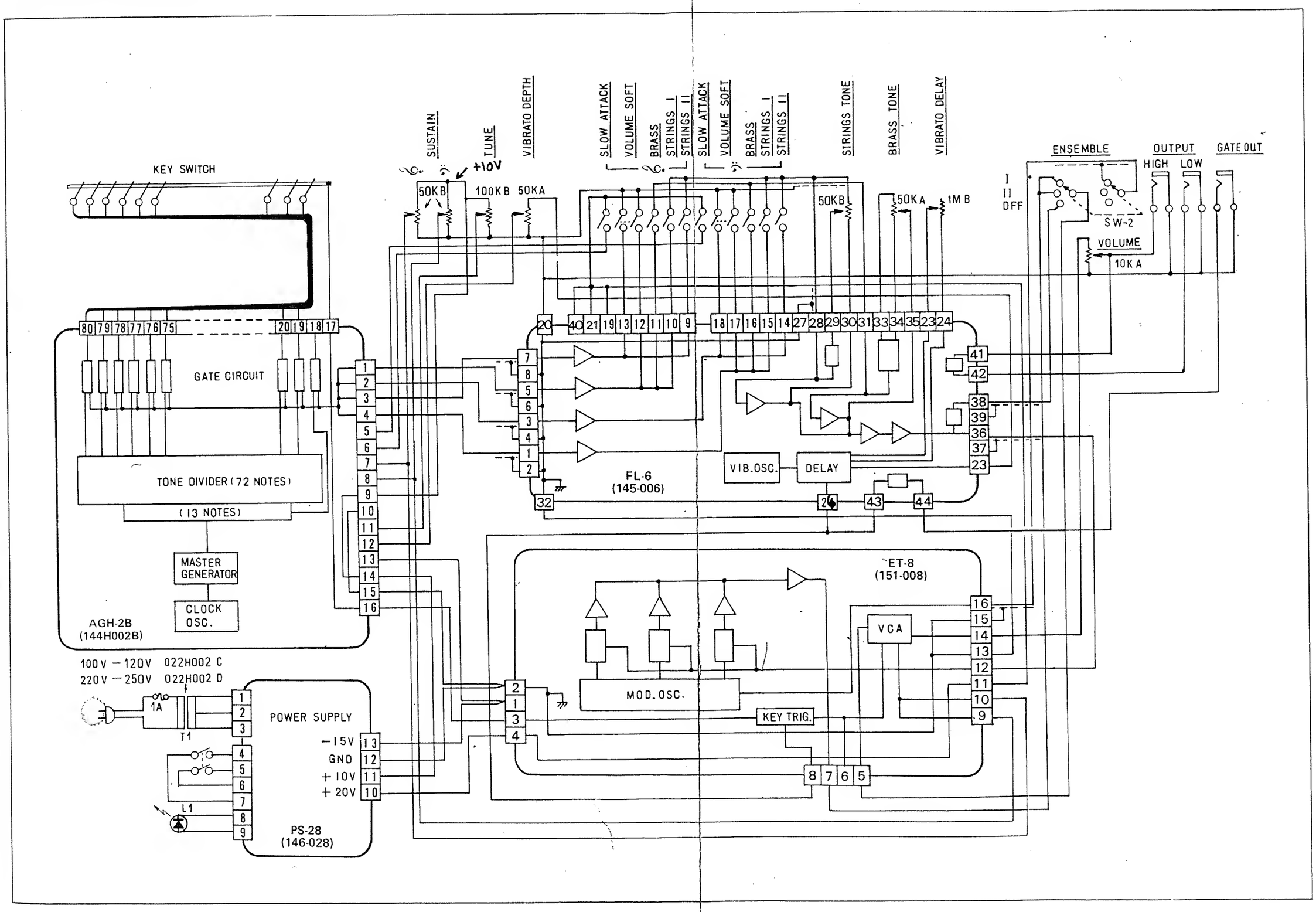
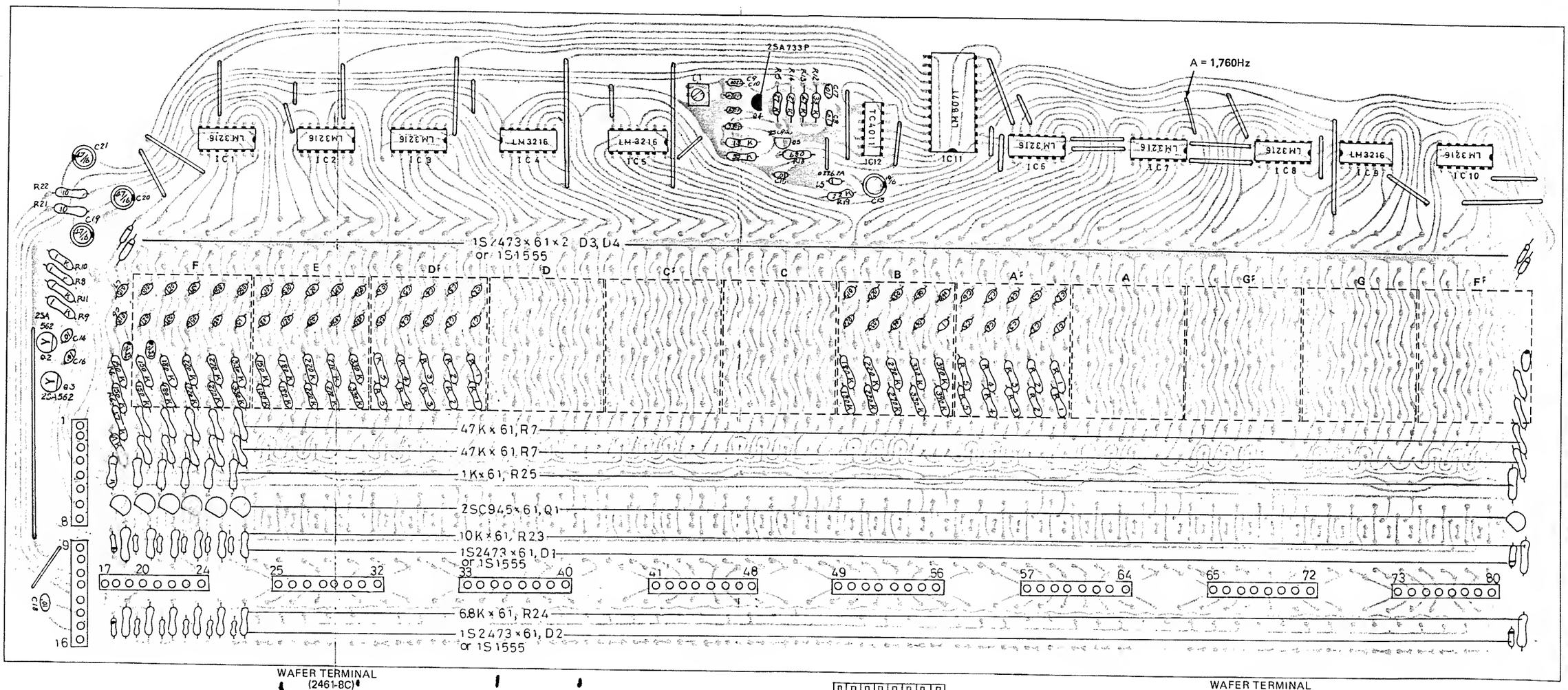
4. BLOCK DIAGRAM



5. TONE GENERATOR AND GATE CIRCUIT (AGH-2B)

PC BOARD, PARTS LAYOUT



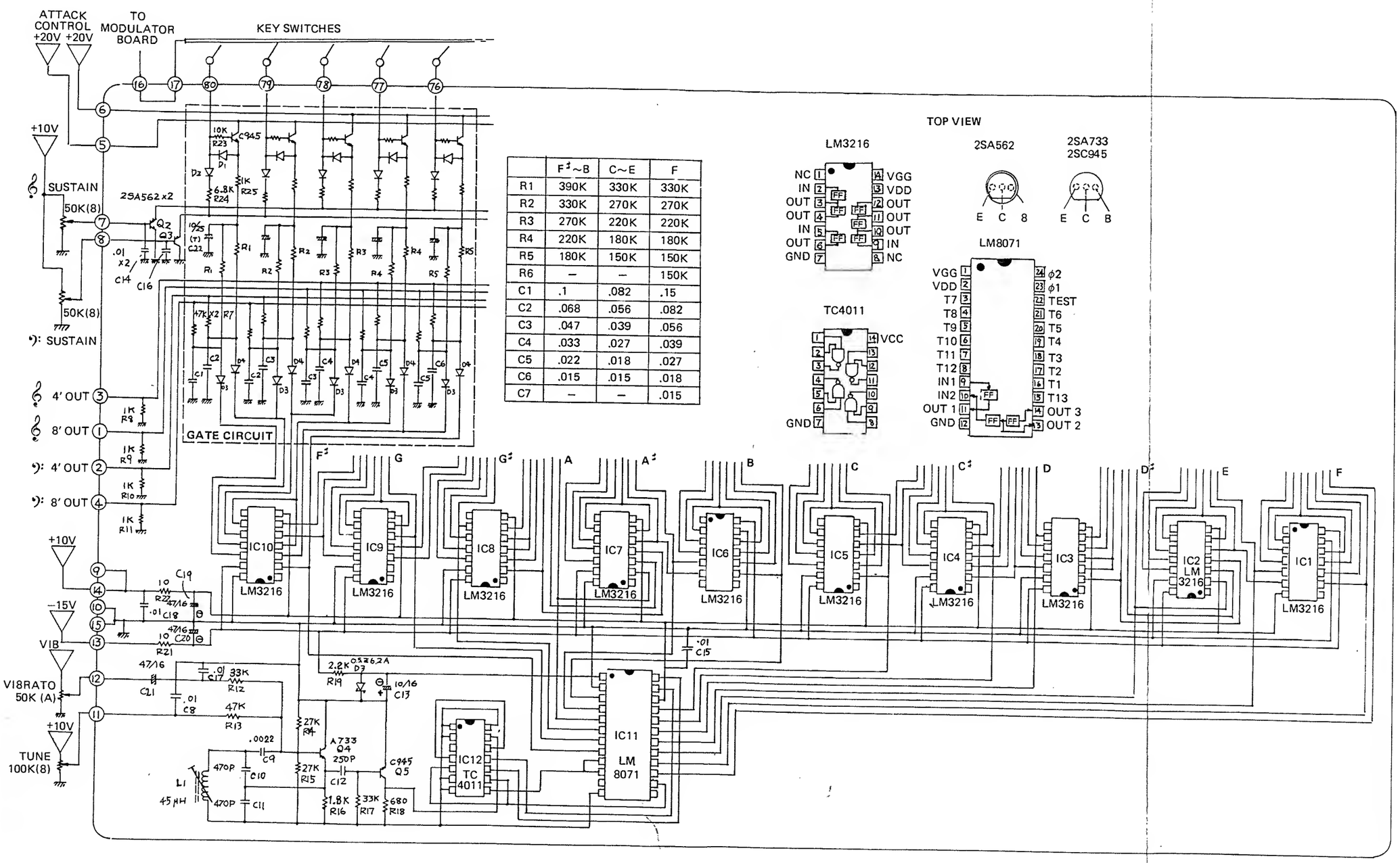
WAFER TERMINAL
(2461-8C)
(010-038)

CONNECTOR HOUSING RECEPTACLE
(2145-8A)
(010-024)

WAFER TERMINAL
(2461-8C)
(010-038)

F – BLUE
F# – RED
G – YELLOW
G# – GREEN

CIRCUIT DIAGRAM



	F♯~B	C~E	F
R1	390K	330K	330K
R2	330K	270K	270K
R3	270K	220K	220K
R4	220K	180K	180K
R5	180K	150K	150K
R6	—	—	150K
C1	.1	.082	.15
C2	.068	.056	.082
C3	.047	.039	.056
C4	.033	.027	.039
C5	.022	.018	.027
C6	.015	.015	.018
C7	—	—	.015

TOP VIEW

LM3216

2SA562

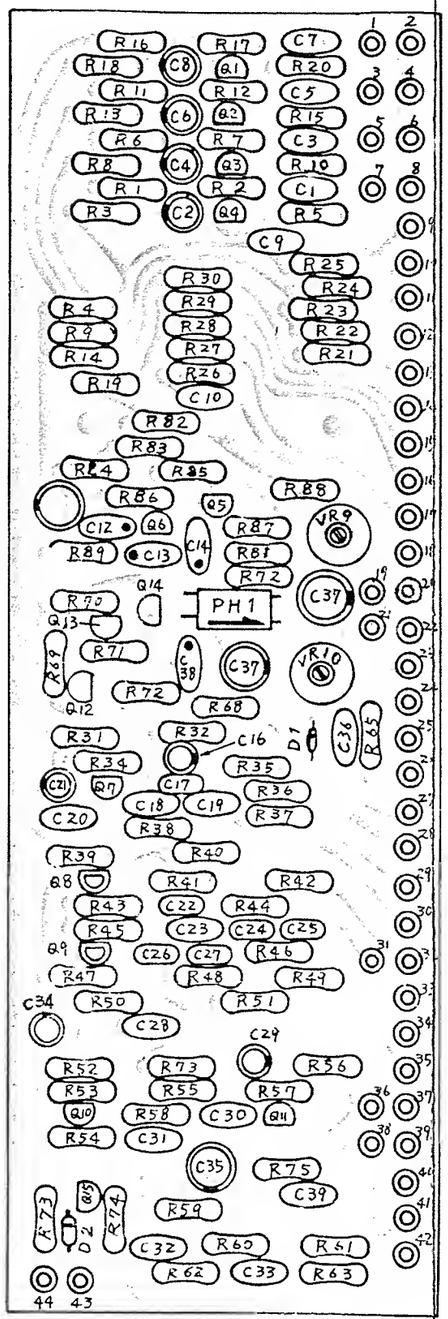
2SA733
2SC945

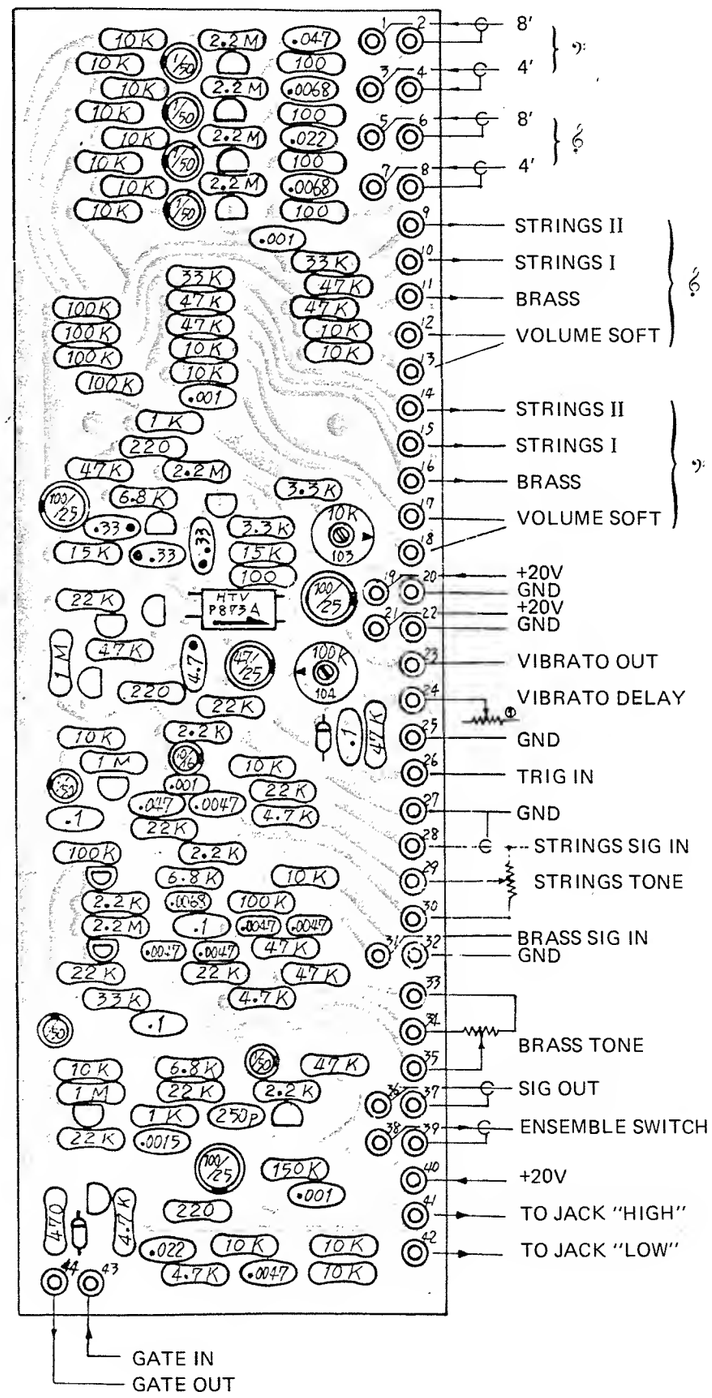
TC4011

LM8071

6. TONE CONTROL AND FILTER (FL-6A)

PC BOARD, PARTS LAYOUT





: D 1S2473

: Tr 2SC945 P or Q

: Tr 2SC1000 GR

: Tantalum Capacitor

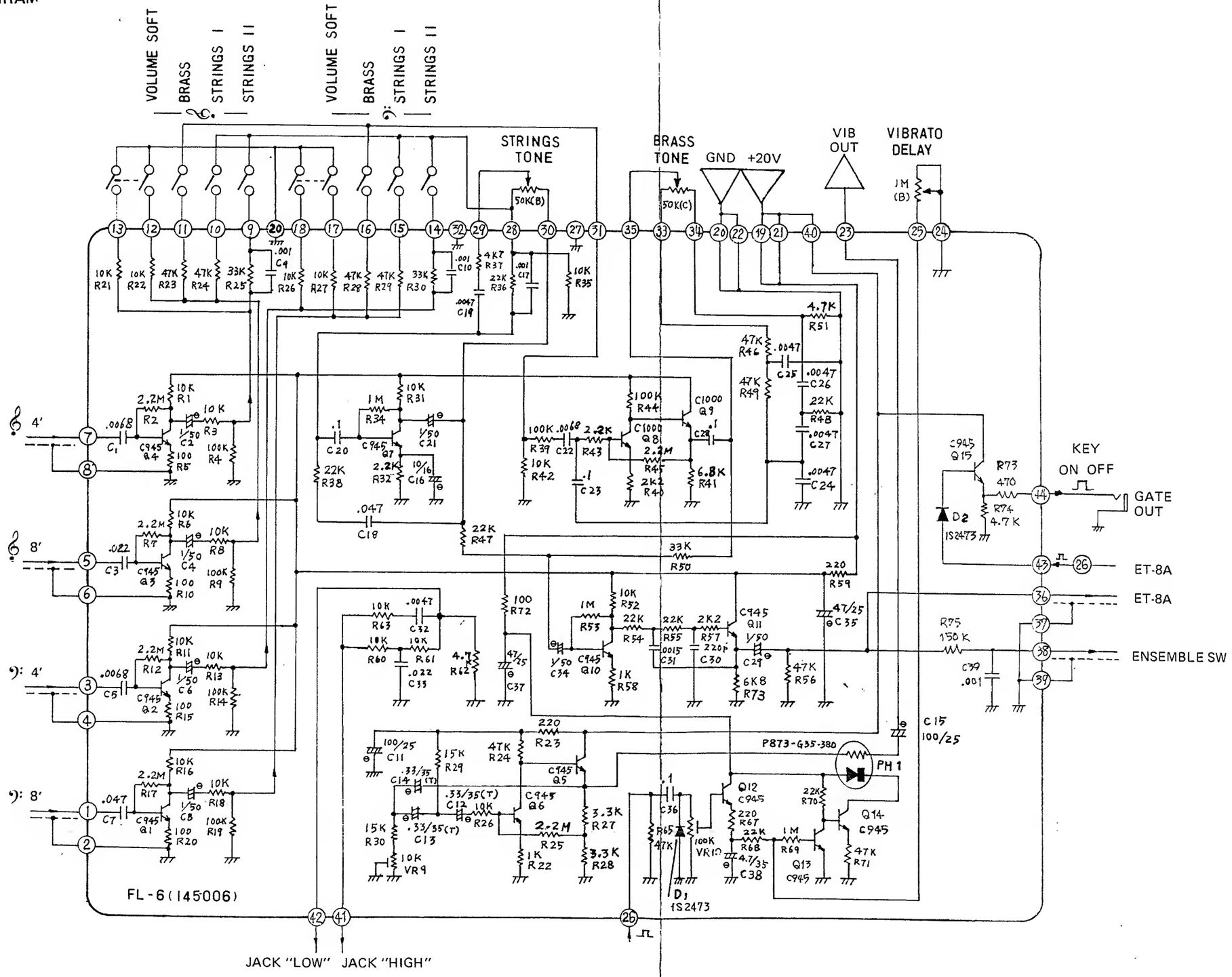
: Electrolytic Capacitor

: Resistor (R25 type)

: Mylar Capacitor

: Trimmer Potentiometer

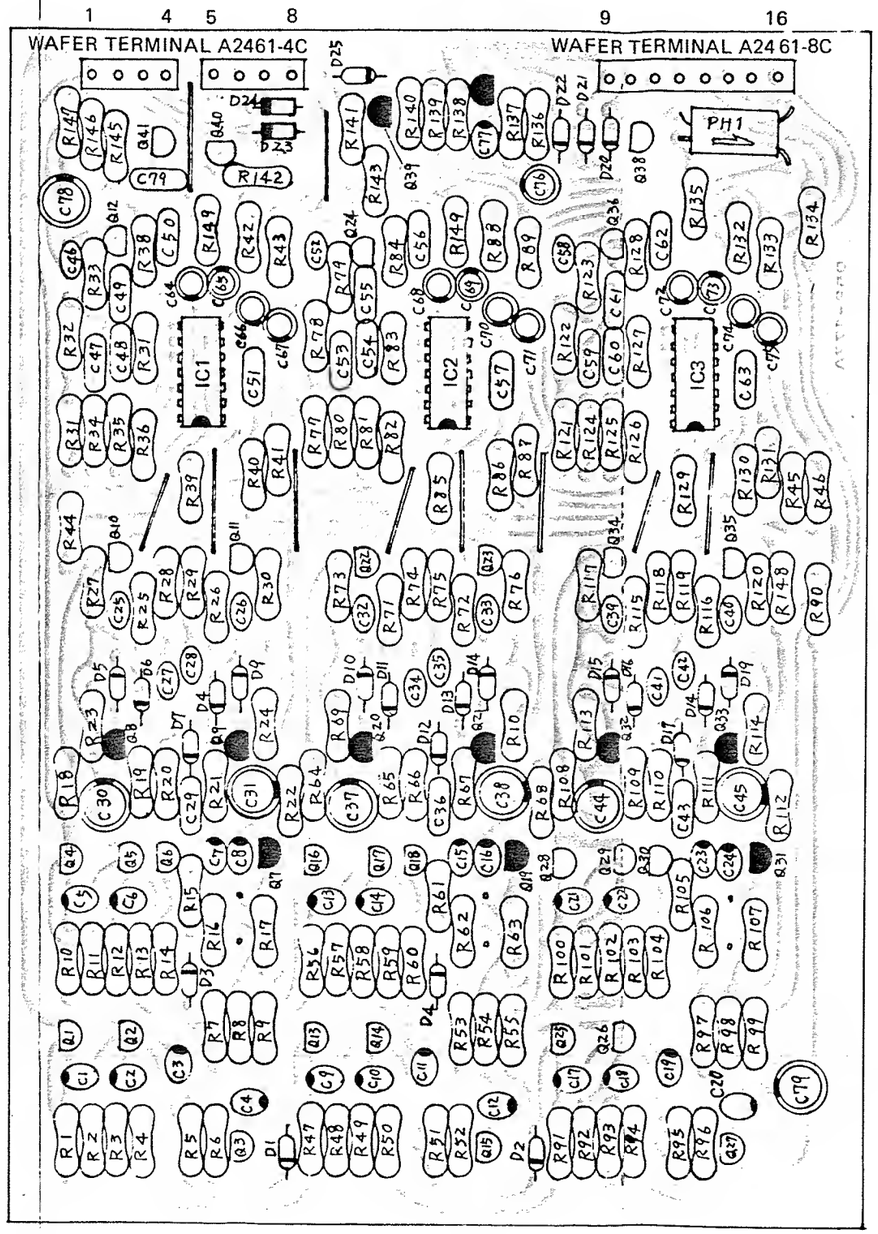
CIRCUIT DIAGRAM

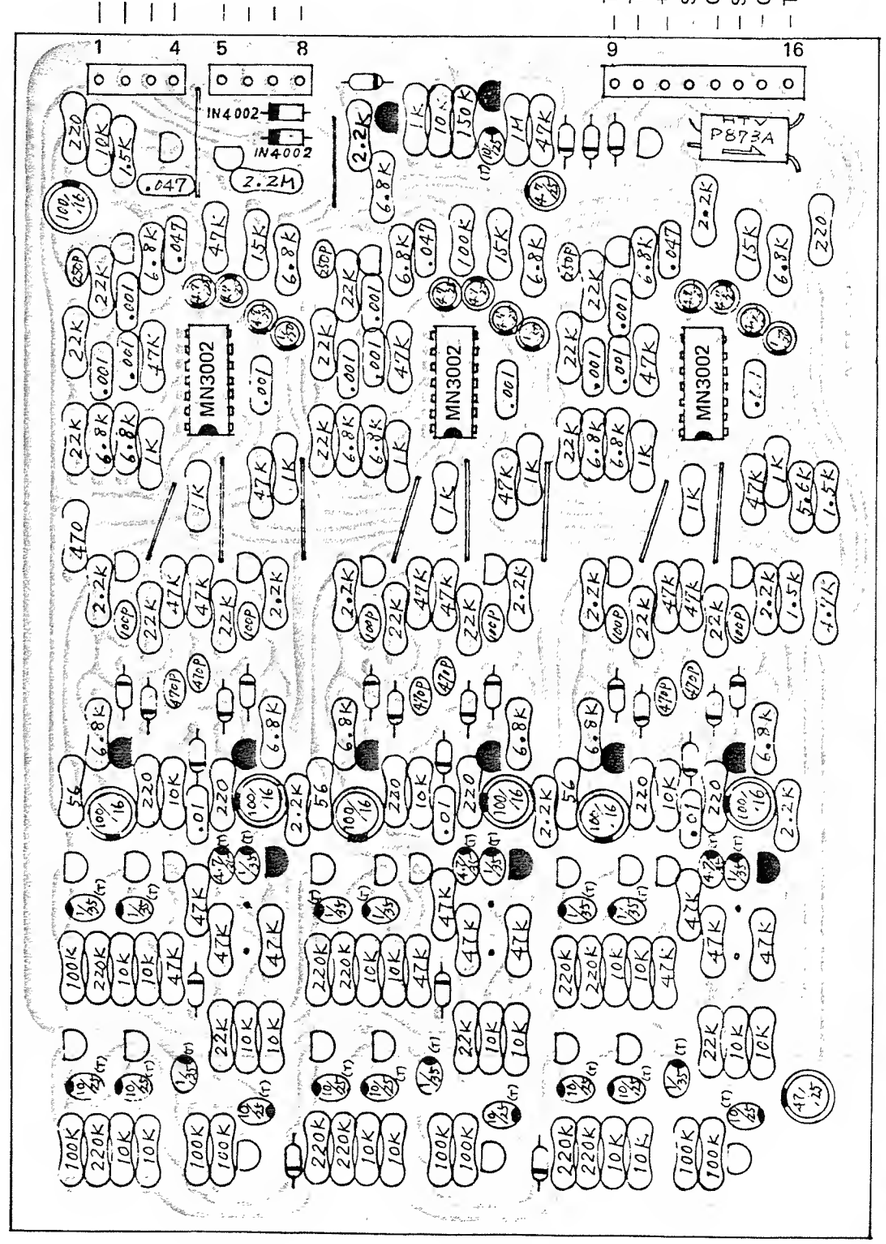


7. MODULATOR (ET-8A)

PC BOARD, PARTS LAYOUT

Note: C8, C16, C24 (1/35, Tantalum) changed to (2.2/35, Tantalum) from Serial No. XX1400 and higher.

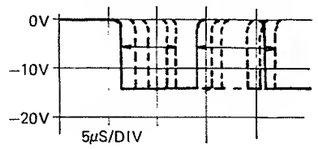




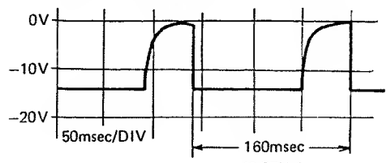
- Tr 2SC945 P or Q
- Tr 2SA733 P or Q
- D 1S2473
- Resistor 1/4W ±5% Carbon Film
- Tantalum Capacitor
- Electrolytic Capacitor
- Mylar or Ceramic Capacitor
- D 1N4003

CIRCUIT DIAGRAM

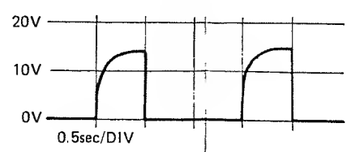
A POINT (ENSEMBLE SW : I POSITION)



B POINT (ENSEMBLE SW : I POSITION)



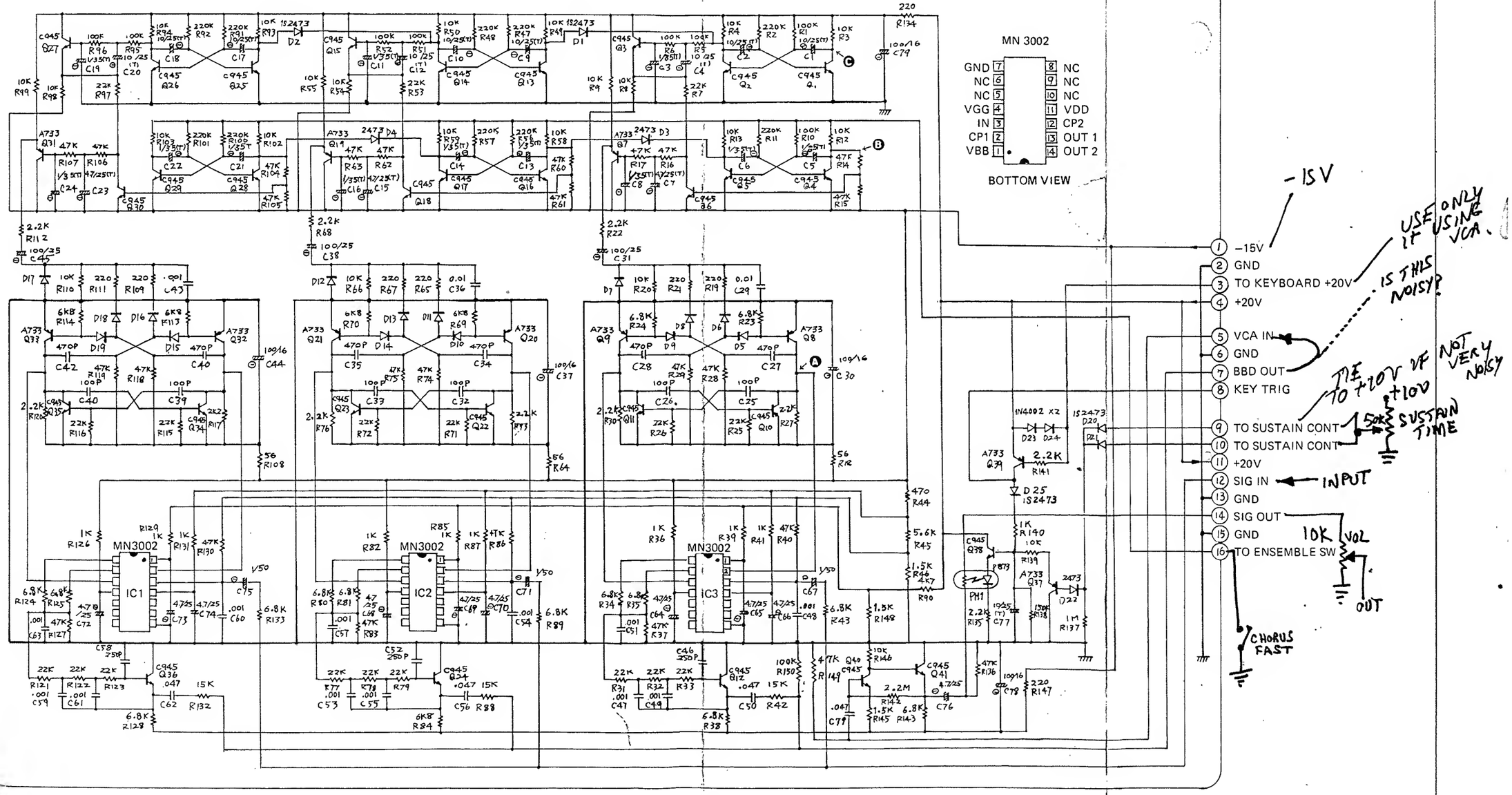
C POINT



Note: C8, C16, C24 (1/35, Tantalum) changed to (2.2/35, Tantalum) from Serial No. XX1400 and higher.

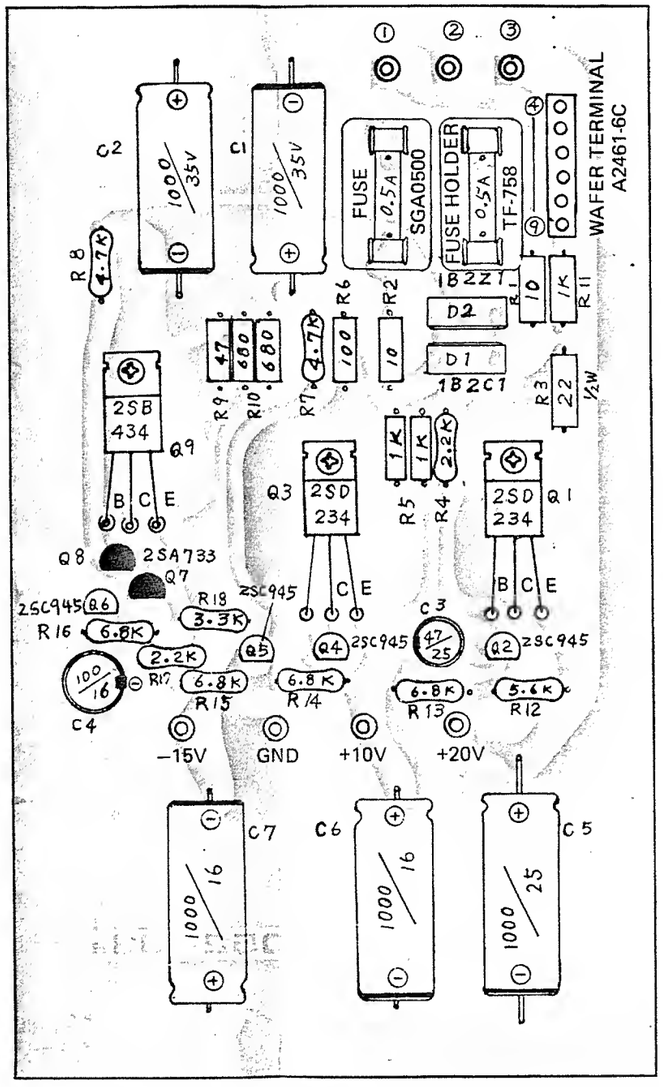
MN 3002

BOTTOM VIEW

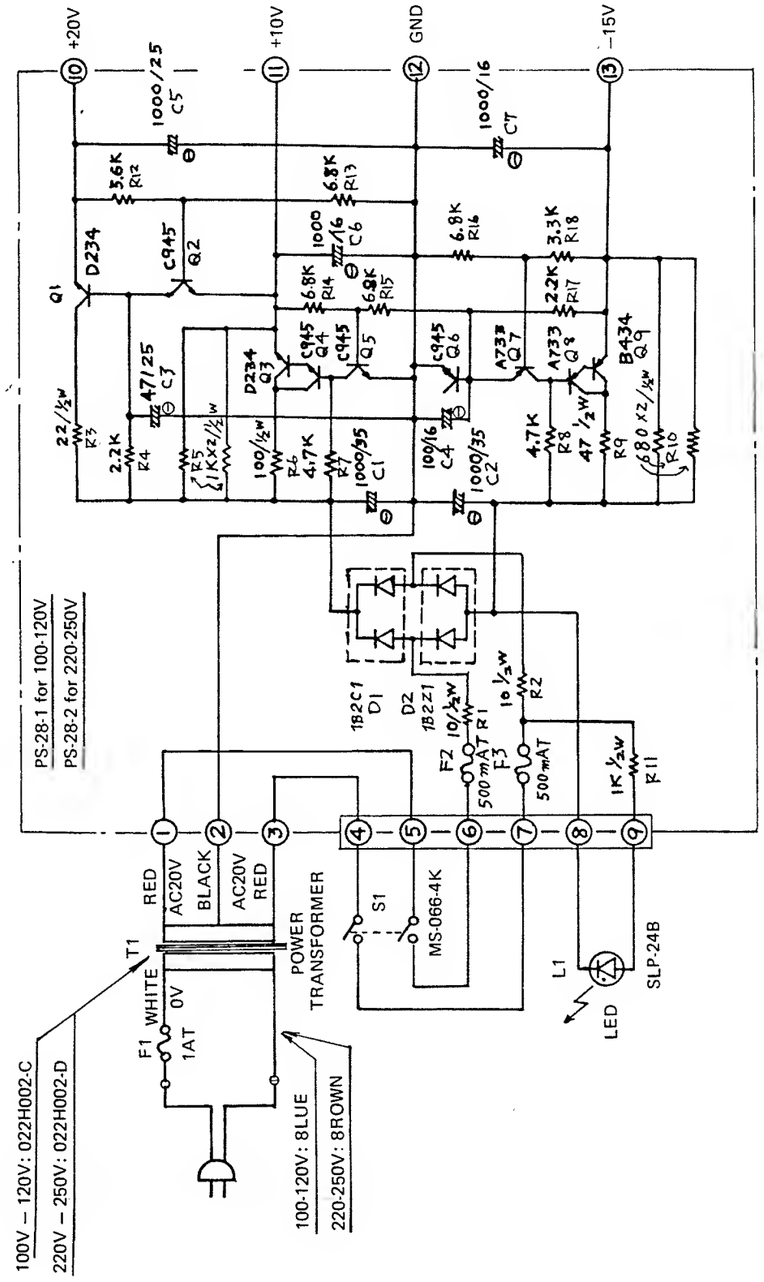


8. POWER SUPPLY (PC-15)

PC BOARD, PARTS LAYOUT (PS-28)
PS-28-1 for 100-120V, without Fuse
PS-28-2 for 220-250V, with Fuse

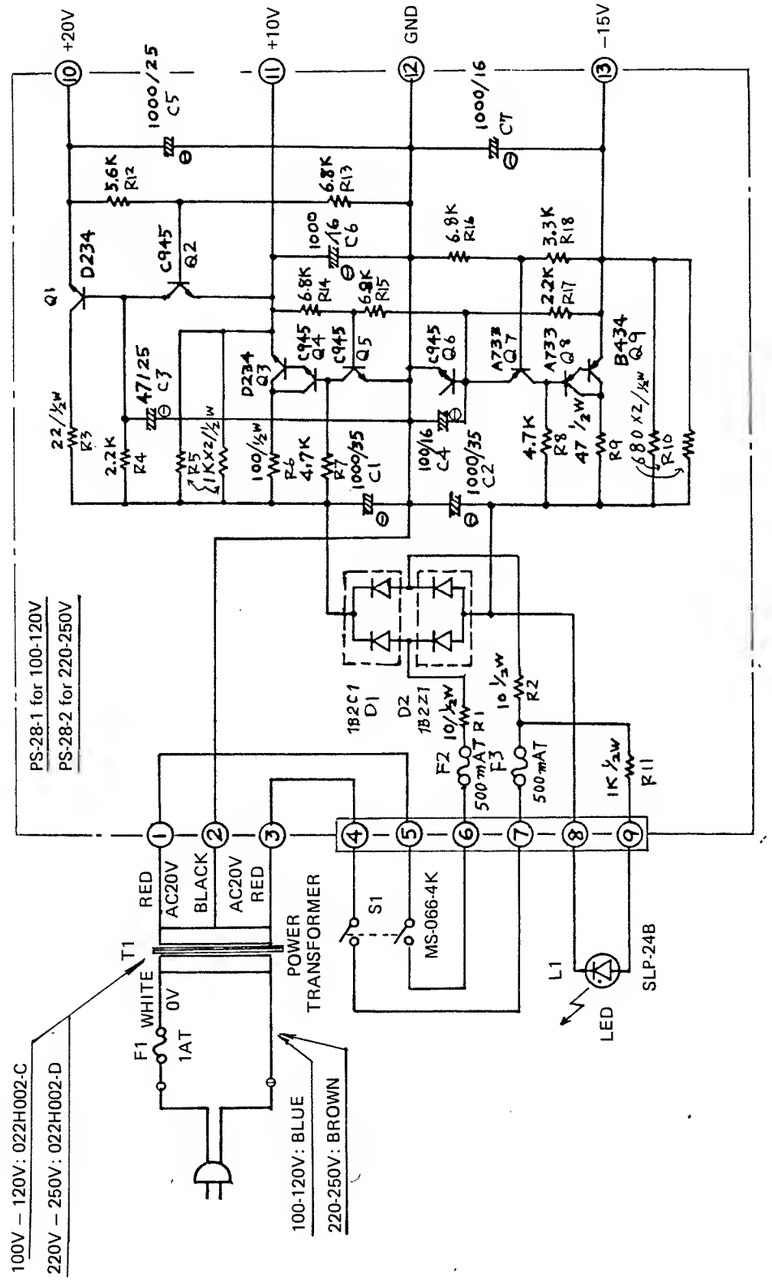


CIRCUIT DIAGRAM



Roland

CIRCUIT DIAGRAM



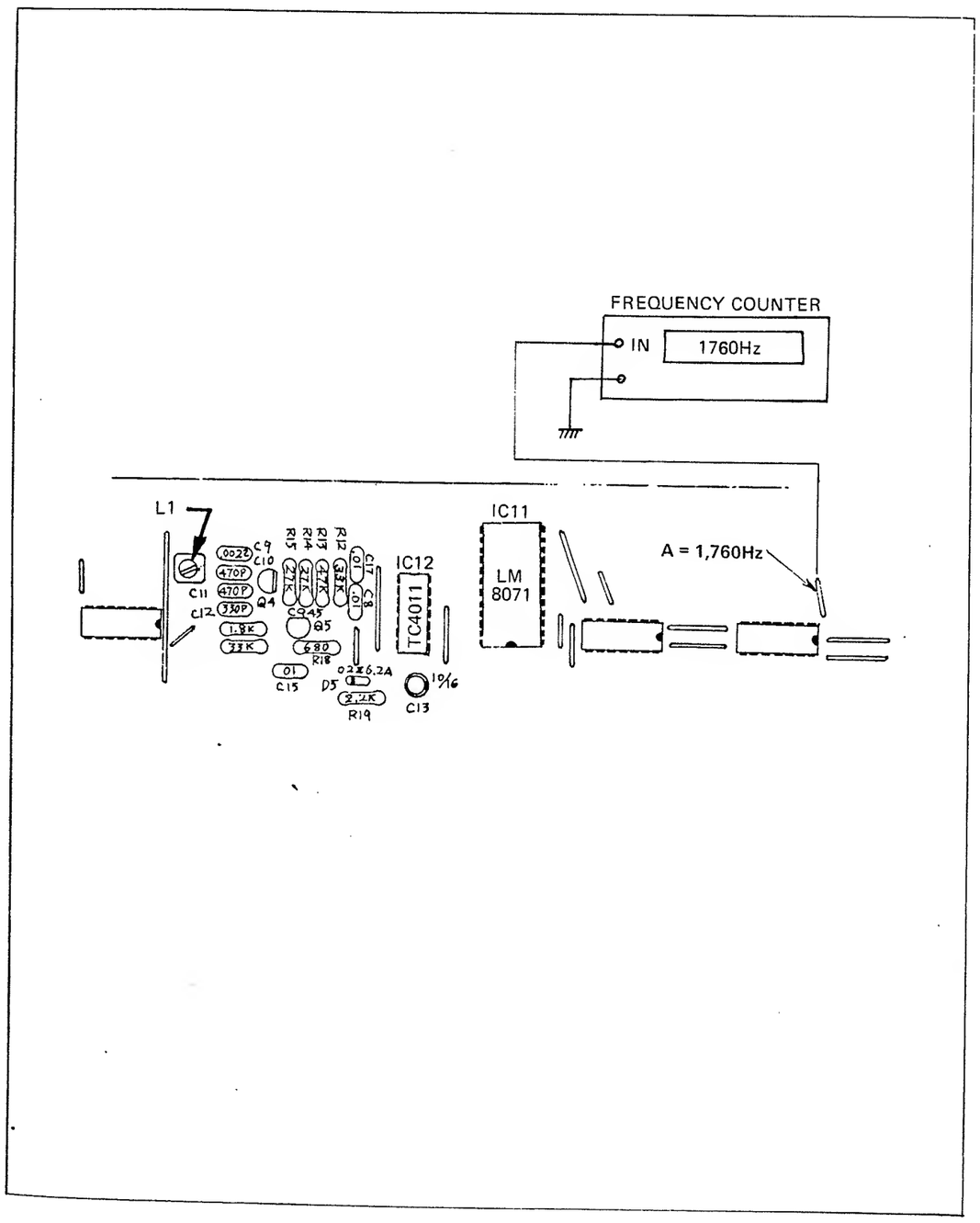
1976-11-20 RS-202

9. ADJUSTING PROCEDURES

9-1. TUNING MASTER GENERATOR

Set TUNE control on the front panel to the center position. Connect a frequency counter as illustrated below.

Adjust coil L1 located on the center of TONE GENERATOR PC BOARD ASSEMBLY, AGH-2B, so that the frequency of "A" is 1,760Hz.

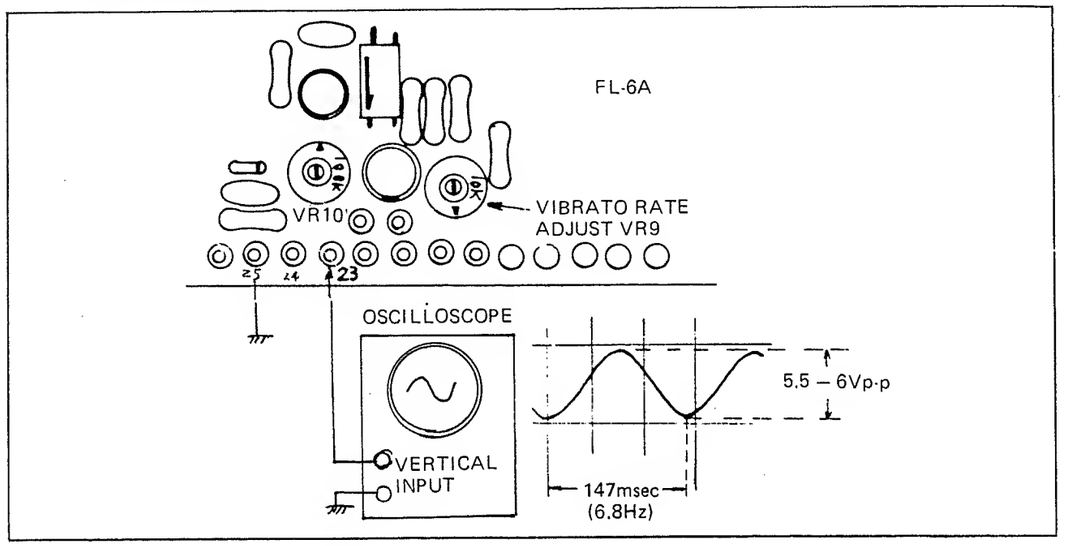


9-2. ADJUSTING VIBRATO

9-2-1. VIBRATO RATE

Connect an oscilloscope to No. 23 terminal of TONE CONTROL BOARD ASSEMBLY, FL-6, as illustrated below.

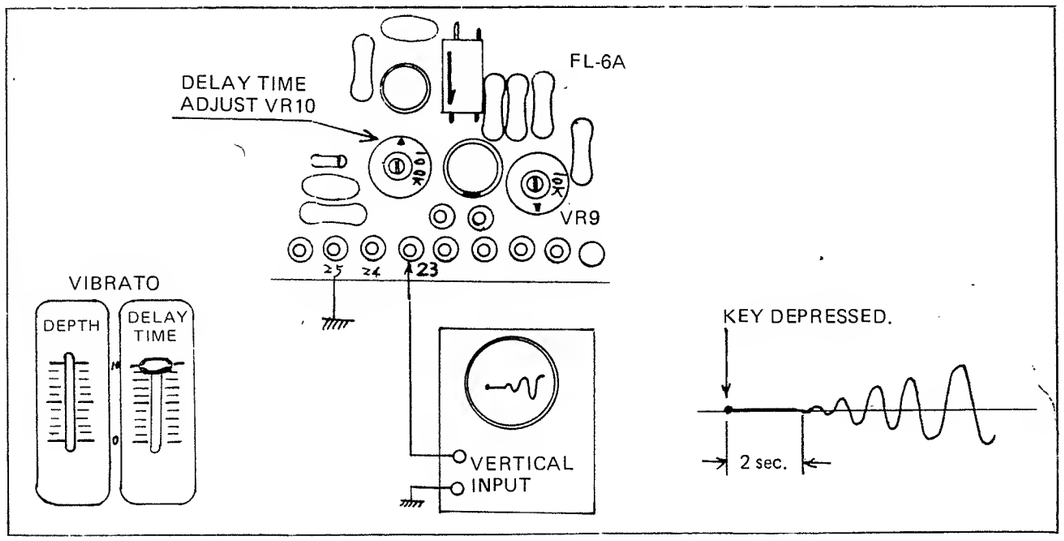
Adjust vibrato rate adjust trimmer potentiometer, VR9, to obtain 147msec (6.8Hz) sine wave on the oscilloscope.



9-2-2. VIBRATO DELAY TIME

Set DELAY TIME control on the front panel to the uppermost position, 10 point. Connect an oscilloscope to No. 23 terminal of TONE CONTROL BOARD ASSEMBLY, FL-6, as illustrated below.

Adjust vibrato delay time adjust trimmer potentiometer, VR10, to obtain vibrato modulation wave as shown in the accompanying figure appears in 2 seconds after a key is depressed.



10. PARTS LIST

PARTS NO.	PARTS NAME & DESCRIPTION
1) GENERAL ASSEMBLY	
081H031	Cabinet Assembly, Top
081H098	Cabinet Assembly, Bottom
081H089	Side Block, Right
081H090	Side Block, Left
066H001	Cord Box No. 1
065-007	Cord Box Lid
004H001	Keyboard Assembly, KS-161A
998	Key Felt, No. 998
162-015	Power Supply Assembly, PC-15 (PC Board Ass'y, PS-28, 146-028)
164-008	Control Panel Assembly, CS-8
144H002B	Tone Generator and Gate Circuit PC Board Assembly, AGH-2B
151-008	Modulator Circuit PC Board Assembly, ET-8
338-021	Wiring A
338-025	Wiring E
2) 164-008	**CONTROL PANEL ASSEMBLY, CS-8**
072H008	Front Panel No. 8
072H009	Sub-chassis No. 9
002H003	Tablet Switch Assembly, RS-15B
001-007	Lever Switch, ESL-18-3S (ENSEMBLE)
028-033	Potentiometer, Slide, 10K(A), EVA-QOAC16-A14
028-035	Potentiometer, Slide, 50K(A), EVA-QOAC16-A54
028-024	Potentiometer, Slide, 50K(B), EVA-QOAC16-B54
028-028	Potentiometer, Slide, 1M(B), EVA-QOAC16-B16
030-055	Potentiometer, Rotary, 100K(B), EVC-BOAK15-B15
018-052	LED, SLP-24B
062-004	Bracket No. 4 (LED Holder)
	Spring Nut, MP-8, for Bracket No. 4
068-001	Bushing No. 1, Chip (in Bracket No. 4)
068-018	Bushing No. 18, Pipe for Music Rack
009-001	Jack No. 1, SG-7615, No. 5
016-003	Knob, No. 3
063-001	Strip, No. 1
016-021	Knob, No. 21, TK-1114
016-036	Knob, No. 36, Black
001-035	Power Switch, MS-0664K, Black
102H003	Long Nut, No. 3
121-005	Jack Washer
068-005	Jack Bushing
338-022	Wiring B
338-023	Wiring C
338-024	Wiring D